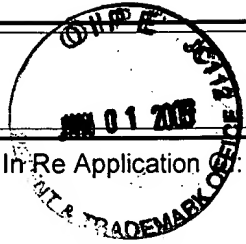
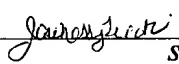
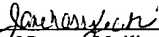


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 TRANSMITTAL LETTER (General - Patent Pending)				Docket No. PENN-0065	
In Re Application of: Wolfe and Fraser					
Application No. 08/393,066	Filing Date February 23, 1995	Examiner Deborah Crouch	Customer No. 26259	Group Art Unit 1632	Confirmation No. 1030
Title: METHOD OF DELIVERY GENES TO THE CENTRAL NERVOUS SYSTEM OF A MAMMAL					
<u>COMMISSIONER FOR PATENTS:</u>					
Transmitted herewith is: Reply Brief (in triplicate)					
in the above identified application.					
<input checked="" type="checkbox"/> No additional fee is required. <input type="checkbox"/> A check in the amount of _____ is attached. <input checked="" type="checkbox"/> The Director is hereby authorized to charge and credit Deposit Account No. 50-1619 as described below.					
<input type="checkbox"/> Charge the amount of _____ <input checked="" type="checkbox"/> Credit any overpayment. <input checked="" type="checkbox"/> Charge any additional fee required.					
<input type="checkbox"/> Payment by credit card. Form PTO-2038 is attached.					
WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.					
 _____ <i>Signature</i>			Dated: June 1, 2005		
Jane Massey Licata Reg. No. 32,257			I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to the "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on _____ <div style="text-align: center;">n (Date)</div>		
CC:			<div style="text-align: center;"> <i>Signature of Person Mailing Correspondence</i> Jane Massey Licata <i>Typed or Printed Name of Person Mailing Correspondence</i> </div>		

CERTIFICATE OF MAILING BY "EXPRESS MAIL" (37 CFR 1.10)			Docket No. PENN-0065	
Applicant(s): Wolfe and Fraser				
Application No. 08/393,066	Filing Date February 23, 1995	Examiner Deborah G. Smith	Customer No. 26259	Group Art Unit 1632
Invention: METHOD OF DELIVERING GENES TO THE CENTRAL NERVOUS SYSTEM OF A MAMMAL				
<p>I hereby certify that the following correspondence:</p> <div style="border: 1px solid black; padding: 10px; text-align: center;">Reply Brief</div> <p style="text-align: center;"><i>(Identify type of correspondence)</i></p> <p>is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on</p> <p style="text-align: center;"><u>June 1, 2005</u> <i>(Date)</i></p> <p style="text-align: center;"><u>Jane Massey Licata</u> <i>(Typed or Printed Name of Person Mailing Correspondence)</i></p> <p style="text-align: center;"><u></u> <i>(Signature of Person Mailing Correspondence)</i></p> <p style="text-align: center;"><u>EV6264976507US</u> <i>("Express Mail" Mailing Label Number)</i></p>				
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No.: PENN-0065
Inventors: Wolfe and Fraser
Serial No.: 08/393,066
Filing Date: February 23, 1995
Examiner: Deborah Crouch
Customer No.: 26259
Group Art Unit: 1632
Confirmation No.: 1030
Title: Method of Delivering Genes to the
Central Nervous System of a Mammal

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By Jane Massey Licata
Jane Massey Licata Registration No. 32,257

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REPLY BRIEF

This reply brief is being filed in response to the Examiner's Answer dated April 6, 2005 to address certain issues raised in the Examiner's Answer.

The claimed invention is a method for delivering a gene of selected DNA sequence to the central nervous system (CNS) of a mammal by administering to peripheral neuron cells of a mammal a neurotropic virus, where the virus contains a selected DNA sequence under the control of a LAT promoter which permits stable expression of the gene for at least four months by infected central nervous system cells. As such, Appellants are not claiming a gene therapy method. However, the basis for the Examiner's rejection is that the mere showing of delivery of a gene to a particular tissue would not have been viewed as enabling gene therapy because the art teaches that gene therapy is unpredictable due to inefficient delivery, cytotoxicity, and lack of sustained expression. As described in detail in the Appeal Brief, Appellants have provided the necessary guidance for making and delivering the neurotropic virus construct of the instant invention to provide stable gene expression in the central nervous system of a mammal and improve upon the teachings of the art. Further, Appellants have disclosed credible use of the claimed invention and provided evidence to show that the invention will work as *claimed*. Thus, Appellants are in compliance with the enabling requirement of the first paragraph of Section 112 and believe that it is improper to

require evidence of safety in the treatment of humans and degree of effectiveness (MPEP 2107.02).

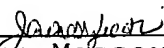
Further, it would have been well-known within the art at the time of filing that a method of stably expressing a selected DNA sequence in the central nervous system of a mammal would be useful in the generation of an animal model. In this regard, Appellants submitted the teachings of Xing et al. ((1994) *J. Immunol.* 153:4059-4069) as evidence of the level of knowledge of one of ordinary skill in the art at the time of filing. Xing et al. disclose tissue-specific delivery and expression of IL-6 in rat lung for investigating cytokine functions *in vivo*. Accordingly, Appellants believe that a person of ordinary skill would immediately recognize the utility of delivering a selected DNA sequence to the tissue of the central nervous system of a mammal and stably expressing the selected DNA sequence in the central nervous system of the mammal in order to establish an animal model for studying disease pathology and facilitating drug discovery.

Thus, Appellants believe that in accord with the requirement set forth in MPEP 2164.01, one reasonably skilled in the art could make or use the invention from the disclosures provided in

the patent application coupled with information known in the art
at the time of filing without undue experimentation.

Reconsideration is, therefore, respectfully requested.

Respectfully submitted,



Jane Massey Licata
Registration No. 32,257

DATE: June 1, 2005

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